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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,993	12/18/2001	Masaki Suzuki	448564/0044	3541

7590

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EXAMINER

LE, HOA T

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 07/07/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

10/024,993

Applicant(s)

SUZUKI ET AL.

Examiner

H. T. Le

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al (US 6,017,605) in view of Inaba et al (US 6,074,724).

Claims 1 and 2: Yamazaki et al disclose a magnetic recording medium comprising a non-magnetic support, a non-magnetic lower layer, and a binder-containing magnetic layer. See col. 3, lines 1-3 and col. 11, lines 54-55. The magnetic layer has a coercive force of 1,500 to 5,000 Oe or preferably 1,700 to 3,000 Oe (col. 23, lines 51-52), a squareness ratio of 0.7 to 0.8 in the machine direction (col. 23, lines 58-60); and a binder in the magnetic layer being a urethane resin (col. 25, lines 41, 60; and col. 25, lines 10, 25). Thus, Yamazaki discloses the claimed invention except the glass transition temperature of the urethane resin. Inaba et al disclose a magnetic recording medium having the same structure as the magnetic recording medium taught by Yamazaki. See Inaba, col. 4, lines 16-21; and col. 13, lines 37-39. Inaba further suggests a urethane resin having a glass transition temperature ("T<sub>g</sub>") of at least 80 °C as the binder for the magnetic layer. See Inaba, col. 8, lines 10-12. It would have been

obvious for one having ordinary skill in the art to utilize the urethane resin having a Tg of at least 80 °C as taught by Inaba in the magnetic layer of Yamazaki because Inaba states that urethane resin with such specific Tg provides sufficient running and storage durability (see Inaba, col. 8, lines 10-16).

Claim 3: See Yamazaki, col. 8, lines 48-55 and col. 9, lines 22-25.

Claim 4: See Yamazaki, col. 5, lines 9-10.

Claim 5: See Yamazaki, col. 19, lines 19-22.

Claim 6: See Yamazaki, col. 8, lines 31-34.

Claim 7: See Yamazaki, col. 14, lines 1-6 and 36-40 and col. 15, lines 18-21.

Claim 8: Yamazaki suggests thicknesses of the non-magnetic support, the magnetic layer and the lower non-magnetic layer being respectively: preferably from 4.0 to 5.5  $\mu\text{m}$  (col. 18, lines 53-59), 0.05 to 0.25  $\mu\text{m}$  (col. 19, lines 10-15); and 1 to 2.5  $\mu\text{m}$  (col. 19, lines 19-22).

Thus the total thickness for the magnetic recording medium ranges from 5 to 8.25  $\mu\text{m}$ .

Claim 9: See Yamazaki, col. 21, lines 25-30.

Claim 10: See Yamazaki, col. 11, line 64 to col. 12, line 9.

Claim 11: See Yamazaki, col. 5, lines 1-7.

Claim 12: See Yamazaki, col. 8, lines 15-20.

3. Other references are cited as art of interest.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 703-308-2415. The examiner can normally be reached on 10:00 a.m. to 8:30 p.m., Mondays to Friday.



H. T. Le  
Primary Examiner  
Art Unit 1773

hl  
June 30, 2003